

## ASSIGNMENT 8

Textbook Assignment: Chapter 9 - Planning, Estimating, and Scheduling

---

- 8-1. The process of determining requirements, and devising and developing methods for constructing a project is called
1. estimating
  2. scheduling
  3. planning
  4. production standardization
- 8-2. Precise statements of quantities are what type of estimates?
1. Preliminary
  2. Detailed
  3. Activity
  4. Manpower
- 8-3. When using the *Seabee Planner's and Estimator's Handbook* for manpower estimates, a man-day unit is equal to what hour work day?
1. 7
  2. 7 1/2
  3. 8
  4. 10
- 8-4. The work schedule of a deployed Seabee battalion is based on an average of 65 hours per man per week.
1. True
  2. False
- 8-5. Which of the following types of labor is considered productive labor not contributing directly or Indirectly to the product?
1. Overhead
  2. Direct
  3. Indirect
  4. Manual
- 8-6. The individual who evaluates a job, has a working knowledge of all phases of construction, and can mentally picture separate operations of the project as it progresses is called the
1. scheduler
  2. estimator
  3. planner
  4. builder
- 8-7. The process of determining when an action must be taken and when material, equipment, and manpower are required is called
1. estimating
  2. planning
  3. scheduling
  4. coordination
- 8-8. What type of schedule is used to coordinate the manpower requirements of a project and show the number of personnel required for each activity?
1. Progress
  2. Equipment
  3. Material
  4. Manpower
- 8-9. When analyzing a project, scheduling always precedes planning.
1. True
  2. False
- 8-10. A project folder package contains what total number of individual folders?
1. 8
  2. 9
  3. 10
  4. 11

- 8-11. The right side of project file folder number 1 contains what information?
1. Predeployment visit summary
  2. Project scope sheet
  3. Level II
  4. Tasking letter
- 8-12. What project file folder contains information on all activities pertaining to the project?
1. 1
  2. 2
  3. 3
  4. 4
- 8-13. The right side of project file folder 5 contains the project bill of materials.
1. True
  2. False
- 8-14. The safety plan that you, as a Builder, develop is located (a) on what side of (b) what file folder?
1. (a) Left side  
(b) File folder 6
  2. (a) Left side  
(b) File folder 7
  3. (a) Right side  
(b) File folder 6
  4. (a) Right side  
(b) File folder 7
- 8-15. The left side of project file folder 9 contains the highlighted project specifications.
1. True
  2. False
- 8-16. When using blueprints, what section should you check to ensure changes were recorded?
1. Revisions
  2. Notes
  3. Specifications
  4. Construction drawings
- 8-17. On specifications, a list of unusual or unfamiliar items of work or materials is called
1. revisions
  2. quantity estimates
  3. notes
  4. statistics
- 8-18. What type of estimate is used as a basis for purchasing materials, and determining equipment and manpower requirements?
1. Activity
  2. Equipment
  3. Quantity
  4. Material
- 8-19. Which of the following procedures is the best way to check your estimates?
1. Have another person check the measurements
  2. Have another person make an independent estimate and compare the two
  3. Have another person initial the estimates as you complete them
  4. Have a crewmember sign the estimate
- 8-20. Which of the following problems can lead to omissions in your quantity estimates?
1. Failure to read all notes on drawings
  2. Errors in scaling
  3. Failure to allow for waste and loss of construction material
  4. All of the above
- 8-21. What should an experienced estimator do if he finds that details on a drawing are not drawn to scale?
1. Approximate the dimensions
  2. Use the same scale that was used elsewhere on the drawings
  3. Assume an approximate scale
  4. Obtain the dimensions from another source

- 8-22. Which of the following documents provides information for material, equipment, and manpower requirements?
1. Planning estimates
  2. Scheduling estimates
  3. Activity estimates
  4. Specifications and drawings
- 8-23. For estimating purposes, how should an activity be defined?
1. Single-task, single-trade
  2. Single-task, multi-trade
  3. Multi-task, multi-trade
  4. Multi-task, single-trade
- 8-24. When identifying an activity for an activity estimate, you must ensure that the
1. description is not complicated
  2. description includes all trades required to do the task
  3. manpower is available to accomplish the task
  4. description identifies a specific quantity of work
- 8-25. Material estimates have which of the following uses?
1. Procurement and determination of availability of materials
  2. Justification for and procurement of material
  3. Scheduling of equipment for projects
  4. Planning manpower needs
- 8-26. When estimating, which of the following forms should be used to list the required materials needed to complete each individual activity?
1. Bill of material
  2. Material takeoff
  3. Estimating worksheet
  4. Material estimate
- 8-27. Which of the following NAVFAC publications contains conversion and waste factors for construction materials?
1. P-405, App C
  2. P-437, Vol I
  3. P-458, Vol II
  4. DM-4.3
- 8-28. When ordering construction materials, long lead items are readily available through the supply system.
1. True
  2. False
- 8-29. The average rate of speed for a vehicle moving materials over roadways is computed by using what percentage of the posted speed limit?
1. 10% to 15%
  2. 20% to 30%
  3. 40% to 56%
  4. 60% to 76%
- 8-30. Where can an estimator locate Information on the quantities and characteristics of construction equipment?
1. SAMM program
  2. NMCB TOA
  3. NAVFAC P-405
  4. NAVFAC P-437
- 8-31. Which of the following NAVFAC publications contains estimating information on common facilities and assemblies
1. P-349
  2. P-405
  3. P-437
  4. P-458
- 8-32. NAVFAC P-405, *Seabee Planner's and Estimator's Handbook*, defines a man-day as how many man-hours?
1. 6
  2. 8
  3. 10
  4. 12

- 8-33. The man-hour estimating tables in NAVFAC P-405 are arranged into how many divisions of work?
1. 10
  2. 12
  3. 14
  4. 16
- 8-34. CPA, CPM, and PERT are techniques used in the analysis of a flow of events and activities of a construction project. What is the generic title covering these techniques?
1. Network analysis
  2. Planning and estimating
  3. Flow charting
  4. Project analysis
- 8-35. A network remains constant throughout its duration and is a statement of logic and policy. Modifications of the policy are allowed.
1. True
  2. False
- 8-36. The sequencing of priorities among the activities making up a project can be represented by a/an
1. estimate
  2. network
  3. plan
  4. SAMM program
- 8-37. Placing underslab conduit runs before pouring concrete is considered what type of dependency?
1. Soft
  2. Continuing
  3. Flexible
  4. Hard
- 8-38. The basic concept behind precedence scheduling is known as
1. CPM
  2. PERT
  3. SAMM
  4. ADM
- 8-39. In precedence diagrams, how are activities represented?
1. An octagon box
  2. A rectangular box
  3. A start and finish node
  4. A round node
- 8-40. The general flow of a precedence diagram is represented by
1. an alphabetical sequence
  2. a numerical sequence
  3. arrows
  4. connectors
- 8-41. In a precedence diagram, what information about an activity can be found on the right side of an activity box?
1. The completion
  2. The start
  3. The man-hours
  4. The critical event
- 8-42. In a precedence diagram, activities may be divided into how many distinct groups?
1. One
  2. Two
  3. Three
  4. Four
- 8-43. In a precedence diagram, intermediate goals with no time duration relate to what kind of activities?
1. Working
  2. Milestone
  3. Critical
  4. Support
- 8-44. How are critical activities in a precedence diagram identified?
1. By arrows
  2. By slash marks through the activity box
  3. By a red circle around the activity
  4. By slash marks through the activity connector

- 8-45. Which of the following rules governs the drawing of a network?
1. Activities must be numbered in sequence
  2. The start of an activity must be linked to the ends of all completed activities before the start may take place
  3. Activities taking place at the same time must be linked before the start may take place
  4. Only critical path activities may be linked to each other

- 8-46. When two network activities are remote from each other but must be connected to show dependency, what type of connector should be used?

1. Direct
2. Joining
3. splitting
4. Parallel

- 8-47. For what reason should you use a dummy event or focal activity in a network?

1. To simplify the network
2. To show lead or lag
3. To represent a delay
4. To determine independent activities

- 8-48. In a network, what is the main objective of the forward pass?

1. To determine the number of activities
2. To allow for material delays
3. To establish the late start and late finish of each activity
4. To determine the duration of the network

- 8-49. The longest path through a network is the critical path.

1. True
2. False

- 8-50. What term identifies the amount of scheduled leeway allowed in a network?

1. Free play
2. Allowance of time
3. Float or slack
4. Dead time or null time









COURSE COMPLETION/DISENROLLMENT FORM  
(Refer to instructions in front of course)

PLEASE PRINT CLEARLY

Builder 3 & 2, Volume 1	82520
-------------------------	-------

NONRESIDENT TRAINING COURSE (NRTC)

NAVEDTRA NUMBER

--	--

NAME, RANK, RATE, CIVILIAN

SSN

IF YOUR COURSE WAS ADMINISTERED BY NETPMSA, YOU MUST SUBMIT THIS FORM TO THE ADDRESS BELOW. IF YOUR COURSE WAS ADMINISTERED BY AN ACTIVE DUTY COMMAND OR NAVAL RESERVE CENTER, DO NOT SUBMIT THIS FORM TO NETPMSA.

☐ COURSE COMPLETION (Date \_\_\_\_\_)

YOU SHOULD RETAIN THE TRAINING MANUAL AND THE ASSIGNMENT BOOKLET IF THEY ARE NOT CLASSIFIED. If CLASSIFIED, submit the material to your command for proper disposition of CLASSIFIED material. A letter of satisfactory completion will be issued to you after your last assignment is received and processed. This form should be included when you send in the last assignment. If the training manual and NRTC courses are designated with distribution statements B, C, D, E, F, or X, and you decide to dispose of the material, you must destroy the material to prevent disclosure of contents or reconstruction of the document.

☐ DISENROLLMENT (Date \_\_\_\_\_)  
(Did not complete the course)

In the event of disenrollment, submit this form to the address below with any unused ADP answer sheets. You need not return any other course material. If the course material is CLASSIFIED, you must submit the material to your command for proper disposition of CLASSIFIED material. If the training manual and NRTC courses are designated with distribution statements B, C, D, E, F, or X, and you decide to dispose of the material, you must destroy the material to prevent disclosure of contents or reconstruction of the document.

☐ OTHER REASON (Specify) :

**PRIVACY ACT STATEMENT**

Under authority of Title 5, USC 301, information regarding your military status is requested to assist in processing your comments and prepare a reply. This information will not be divulged, without written authorization, to anyone other than those within DOD for official use in determining performance.

COMMANDING OFFICER NETPMSA CODE 074 6490 SAUFLEY FIELD RD PENSACOLA FL 32559-5000
--



## STUDENT COMMENT SHEET

THIS FORM MAY BE USED TO SUGGEST IMPROVEMENTS, REPORT COURSE ERRORS, OR TO REQUEST HELP IF YOU HAVE DIFFICULTY COMPLETING THE COURSE.

Date \_\_\_\_\_

FROM:

SSN \_\_\_\_\_

\_\_\_\_\_  
NAME (Last, first, M.I.)  
RANK, RATE, CIVILIAN

\_\_\_\_\_  
STREET ADDRESS, APT #

\_\_\_\_\_  
ZIP CODE \_\_\_\_\_

\_\_\_\_\_  
CITY, STATE

To:    COMMANDING OFFICER  
      NETPMSA CODE 317  
      6490 SAUFLEY FIELD Rd  
      PENSACOLA FL 32509-5237

Subj:   NRTC Builder 3 & 2, Volume 1, NAVEDTRA 82520

1.    The following comments are hereby submitted:

## PRIVACY ACT STATEMENT

Under authority of Title 5, USC 301, information regarding your military status is requested to assist in processing your comments and prepare a reply. This information will not be divulged, without written authorization, to anyone other than those within DOD for official use in determining performance.

NETPMSA 1550/41 (Rev. 2-93)

.....(Fold along dotted line and staple or tape).....

.....(Fold along dotted line and staple or tape).....

DEPARTMENT OF THE NAVY

---

COMMANDING OFFICER  
NETPMSA CODE 317  
6490 SAUFLEY FIELD RD  
PENSACOLA FL 32509-5237

---

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

COMMANDING OFFICER  
NETPMSA CODE 317  
6490 SAUFLEY FIELD RD  
PENSACOLA FL 32509-5237

PRINT OR TYPE

TITLE \_\_\_\_\_ NAVEDTRA \_\_\_\_\_

NAME \_\_\_\_\_ ADDRESS \_\_\_\_\_  
Last First Middle Street/Ship/Unit/Division, etc.

RANK/RATE \_\_\_\_\_ SOC. SEC. NO. \_\_\_\_\_ City or PPO \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
DESIGNATOR \_\_\_\_\_ ASSIGNMENT NO. \_\_\_\_\_

☐ USN ☐ USNR ☐ ACTIVE ☐ INACTIVE OTHER (Specify) \_\_\_\_\_ DATE MAILED \_\_\_\_\_

1 T	2 P	3	4		1 T	2 P	3	4		1 T	2 P	3	4				
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	26	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	51	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	27	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	52	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	28	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	53	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	29	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	54	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	30	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	55	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	31	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	56	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	32	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	57	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	33	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	58	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	34	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	59	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	35	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	60	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	36	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	61	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	37	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	62	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	38	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	63	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	39	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	64	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	40	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	65	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	41	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	66	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	42	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	67	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	43	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	68	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	44	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	69	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	45	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	70	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
21	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	46	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	71	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
22	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	47	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	72	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
23	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	48	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	73	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
24	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	49	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	74	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
25	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____	75	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____





